

ABSTRACT

From one aspect, the invention is a method of making a bending wave panel loudspeaker, comprising rigidly coupling a lever to a panel edge or marginal portion such that the lever extends at an angle to the plane of the panel, coupling a bending wave exciter to the lever whereby bending wave energy is coupled to the panel to produce an acoustic output when the exciter is fed with a signal and supporting the panel on a suspension positioned outboard of the lever. From another aspect the invention is a bending wave panel-form loudspeaker having a lever rigidly coupled to a marginal portion or edge of the panel, a vibration exciter coupled to the lever to apply bending wave energy to the panel to produce an acoustic output and a panel suspension positioned outboard of the lever. From a further aspect, the invention is a small electronic device, e.g. a mobile telephone or PDA, having a display screen, and a transparent protective cover over the display screen, wherein the transparent protective cover is a loudspeaker as described above.